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POSITIONS. AREAS. AND COUNTS OF SUNSPOTS
SEPTEMBER-OCTOBER, 1954

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These results are based upon measurements made at the Naval Observatory on plates secured either there or at the Mt. Wilson Observatory. The symbols used for the entries in the successive columns are as follows:

U.T., the epoch of observation in Universal Time.

No., the identifying number of the group assigned by Mt. Wilson.

Δl , the heliographic difference in longitude from the central meridian, measured positive to the west.

φ , the heliographic latitude, measured positive to the north.

ρ , the heliocentric angular distance from the line joining the centers of the Earth and Sun.

A , the true area of the umbra plus penumbra, expressed in millionths of the visible hemisphere.

s , the number of spots.

An asterisk means that no Mt. Wilson number was assigned. Plates secured at the Naval Observatory are indicated by N, and those at Mt. Wilson by M. The plate quality, which follows, is indicated by:

1, Poor; 2, Fair; 3, Good; 4, Very Good; 5, Excellent.

The following five quantities are listed successively at the end of each day, and give for that day:

1. The total number of groups, g .
2. The longitude of the central meridian, L_0 .
3. The latitude of the center of the disc, B_0 .
4. The total value of A .
5. The total value of s .

The mean daily area and the mean relative sunspot number, $r=10g+s$ are given at the end of the month.

These results are a continuation of those published in the *Monthly Weather Review* from February 1, 1927 to December 31, 1947.

SEPTEMBER

U. T.	No.	Δl	φ	ρ	A	s	U. T.	No.	Δl	φ	ρ	A	s
		°	°	°					°	°	°		
1,550 N-3					0	0	12,623 N-2					0	0
	(0)	(25)	(+7)		0	0		(0)	(239)	(+7)		0	0
2,560 N-4					0	0	13,587 N-2					0	0
	(0)	(12)	(+7)		0	0		(0)	(226)	(+7)		0	0
3,560 N-3					0	0	14,580 N-3					0	0
	(0)	(358)	(+7)		0	0		(0)	(213)	(+7)		0	0
4,593 N-3	11190	-66	-24	71	24	1	15,686 N-1					0	0
	(1)	(345)	(+7)		24	1		(0)	(198)	(+7)		0	0
5,578 M-3					0	0	16,601 N-3					0	0
	(0)	(332)	(+7)		0	0		(0)	(186)	(+7)		0	0
6,653 N-3	11190	-43	-24	52	6	1	17,594 N-3					0	0
	(1)	(318)	(+7)		6	1		(0)	(173)	(+7)		0	0
7,558 N-3					0	0	18,713 N-2					0	0
	(0)	(305)	(+7)		0	0		(0)	(158)	(+7)		0	0
8,560 N-4					0	0	19,815 N-1					0	0
	(0)	(292)	(+7)		0	0		(0)	(144)	(+7)		0	0
9,683 N-3					0	0	20,687 N-2					0	0
	(0)	(278)	(+7)		0	0		(0)	(132)	(+7)		0	0
10,639 N-2					0	0	21,830 N-2					0	0
	(0)	(265)	(+7)		0	0		(0)	(117)	(+7)		0	0
11,772 N-2					0	0	22,568 N-3					0	0
	(0)	(250)	(+7)		0	0		(0)	(107)	(+7)		0	0

SEPTEMBER OCTOBER

U.T.	No.	Δl	φ	ρ	A	s	U.T.	No.	Δl	φ	ρ	A	s
23,589 N-3		°	°	°	0	0	N-2		°	°	°		
	(0) (94)	(+7)			0	0		(1) (321)	(+7)			36	1
24,616 N-2					0	0	4,606 N-5					0	0
	(0) (80)	(+7)			0	0		(0) (309)	(+7)			0	0
25,622 N-2					0	0	5,577 N-4	11196	-53	+36	57	36	1
	(0) (67)	(+7)			0	0		11196	-51	+34	55	12	2
26,674 N-2					0	0		(1) (296)	(+6)			48	3
	(0) (53)	(+7)			0	0	6,597 M-4					0	0
27,625 N-2					0	0		(0) (282)	(+6)			0	0
	(0) (41)	(+7)			0	0	7,617 N-2					0	0
28,625 N-2					0	0		(0) (269)	(+6)			0	0
	(0) (27)	(+7)			0	0	8,622 N-2					0	0
29,631 N-2					0	0		(0) (256)	(+6)			0	0
	(0) (14)	(+7)			0	0	9,637 N-3	11196	+8	+32	26	24	2
30,592 N-3	11194	-53	-32	64	24	1		11196	+10	+31	26	24	1
	11194	-53	-33	65	24	1		(1) (242)	(+6)			48	3
	(1) (2)	(+7)			48	2	10,670 N-2					0	0
Mean for 30 days $A=3, r=1.1$								(0) (229)	(+6)			0	0
1,681 N-3					0	0	11,633 N-2					0	0
	(0) (347)	(+7)			0	0		(0) (216)	(+6)			0	0
2,598 N-3	11196	-85	+32	83	145	1	12,619 N-3	11198	-6	-35	43	6	1
	11196	-80	+32	78	97	2		(1) (203)	(+6)			6	1
	(1) (335)	(+7)			242	3	13,628 N-3	11198	+5	-35	42	48	1
3,675	11194	-67	+36	67	36	1		(*)	+52	+35	56	12	2
								(2) (190)	(+6)			60	3

OCTOBER

U.T.	No.	Δl	φ	ρ	A	s
14,660	11200	-33	+12	33	6	1
N-2	11198	+20	-36	47	36	1
	(2)	(176)	(+6)		42	2
15,603	11201	-51	+28	54	12	1
M-5	11201	-47	+28	51	12	3
	11201	-47	+29	51	6	4
	11201	-44	+26	46	6	6
	11200	-23	+11	23	6	2
	11200	-22	+11	22	6	2
	11200	-21	+12	22	6	1
	11198	+33	-35	53	24	1
	11198	+34	-35	53	6	1
	11198	+35	-35	54	6	1
	(3)	(163)	(+6)		90	22
16,599	11202	-45	-21	53	24	2
N-3	11201	-30	+26	35	61	2
	11198	+46	-35	61	48	1
	(3)	(150)	(+6)		133	5
17,683	11201	-15	+26	25	73	2
N-2						
	(1)	(137)	(+6)		73	2
					0	0
18,628						
N-2						
	(0)	(124)	(+6)		0	0
19,817	11203	-67	+33	69	36	2
N-4						
	(1)	(108)	(+5)		36	2
20,642	11203	-55	+33	58	61	3
N-3						
	(1)	(97)	(+5)		61	3
21,650	11203	-43	+32	48	48	1
N-3						
	(1)	(84)	(+5)		48	1
22,636	11203	-30	+32	38	48	1

U.T.	No.	Δl	φ	ρ	A	s
N-3						
	(1)	(71)	(+5)		48	1
23,739	11203	-16	+32	31	48	2
N-2						
	(1)	(56)	(+5)		48	2
24,737	11203	-4	+32	26	36	1
N-2						
	(1)	(43)	(+5)		36	1
25,724	11203	+7	+32	27	16	1
N-2	11203	+8	+32	27	16	1
	11203	+8	+31	26	24	2
	(1)	(30)	(+5)		56	4
26,674	11203	+21	+32	34	32	1
N-2						
	(1)	(17)	(+5)		32	1
27,682					0	0
N-4						
	(0)	(4)	(+5)		0	0
28,627					0	0
N-2						
	(0)	(352)	(+5)		0	0
29,589					0	0
N-2						
	(0)	(339)	(+5)		0	0
30,726					0	0
N-3						
	(0)	(324)	(+4)		0	0
31,678					0	0
N-2						
	(0)	(311)	(+4)		0	0

Mean for 31 days, $A=37$, $r=9.7$